

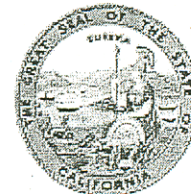


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## Department of Health Services

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April 13, 2005

Mr. Thomas Pinkos, Executive Officer  
Central Valley Regional Water Quality Control Board  
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### TENTATIVE NPDES ORDER, BEAR VALLEY WATER DISTRICT WASTEWATER TREATMENT PLANT, ALPINE COUNTY

The Department has reviewed the tentative NPDES Permit for the Bear Valley Wastewater Treatment Facility. The Department previously commented on tentative Waste Discharge Requirements for the Bear Valley Water District in June of 2001. At that time, there was also a proposal by the Regional Water Quality Control Board (RWQCB) to authorize the discharge of wastewater from the Bear Valley Water District through an NPDES permit. The Department objected to that proposal for a number of reasons that remain valid to this day. The following paragraphs presents the Department's reasoning in objecting to the current proposal to grant an NPDES permit.

It remains the basic policy of the Department that there should be no discharge of sewage effluent to streams and rivers used for domestic water supply. Bloods Creek is a tributary to the Stanislaus River. The Stanislaus River is the primary source of water used for domestic supply for most of the population of Calaveras County and most of Stockton. Furthermore, with the pending completion of the 40 MGD surface water treatment plant by the South San Joaquin Irrigation District in the next month or two, the Stanislaus River will be the major source of domestic water for Manteca, Lathrop, Escalon and Tracy. Therefore, the protection of the quality of the water available from the Stanislaus River is more important today than it was in 2001.

Although the current request from Bear Valley is a permit to discharge wastewater following extremely wet winters, the RWQCB should consider the precedent that would be established by approving an NPDES permit for the Bear Valley Water District. In the numerous past years since the NPDES program has been in existence, the RWQCB has acted responsibly by awarding only a few NPDES discharge permits in the mountain counties (Alpine, Amador, and Calaveras) regulated by this office. From a public health perspective, the restraint of the RWQCB in that regard has resulted in an enormous public health benefit, and the Department commends the RWQCB for preserving the pristine waters that are available from the mountain counties in the region, particularly since the San Joaquin River, the primary source of surface water in the lower San Joaquin Valley is not an acceptable source of drinking water.

Granting an NPDES permit to the Bear Valley Water District would open the door for similar activities by other utilities in Calaveras County, situated downstream of Bear Valley on the Stanislaus River. In the past, the Calaveras County Water District has performed responsibly in avoiding discharges to the Stanislaus River, which would



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receive the discharge from Bear Valley. However, an NPDES permit for Bear Valley would establish a precedent that would encourage dischargers in Calaveras County to view the Stanislaus River as a receiving water that is generally available for all wastewater discharges.

The RWQCB, however, should realize that the Department is not objecting to the type of NPDES permit that was issued to Calaveras County Water District for the incidental discharge of recycled wastewater from the Saddle Creek golf course. Since that effluent has been treated to a tertiary level and disinfected to a limit of no more than 2.2 MPN per mL and since the discharge would be infrequent and very limited in quantity, the Saddle Creek permit does not constitute a precedent for the wholesale discharge of large volumes of wastewater to the Stanislaus River. Such discharges will necessarily remain insignificant because of their incidental nature and their association with unusual conditions that are difficult to control and of minimal volume. Furthermore, the water that may enter waters of the state due to such incidental discharges has received the best wastewater treatment that is being practiced on any appreciable scale in California, not to mention that the additional treatment that naturally occur as the recycled water is applied to the golf course and flows over the vegetated land on the way to the receiving water, provides some further mitigation of the impact of the discharge.

In addition, while the current NPDES proposal is only to facilitate a discharge that is now projected to occur at a low frequency, Bear Valley is now beginning to experience growth that will accelerate in the next several years to a point at which the increase in wastewater flows will necessitate discharges to waters of the State quite frequently, and in a short time, annually. While the number of dwelling units that have discharged to the Bear Valley Water District wastewater facilities has been quite stable at around 600 units for the past decade or more, construction of a condominium project that will add 94 additional service connections to the wastewater facility over the next 4 years will increase the wastewater discharge burden by about 15% in the next four years. Since the community is now requesting an NPDES discharge permit based on the claim that there is no remaining capacity for discharging more effluent to land, it is clearly evident that frequent discharges to Bloods Creek will become a necessity as growth increases the quantity of wastewater that must be discharged to land disposal facilities that are currently insufficient for all conditions.

Furthermore, the sudden increase in the rate of new development that is now beginning in Bear Valley is likely to continue and accelerate in the coming years. The General Plan for Alpine County authorizes considerable development in Bear Valley. While most of the development in past decades has been on the north side of State Route 4, the General Plan provides for the construction of a total of about 1800 dwelling units in the Bear Valley development. That allows for the construction of approximately an additional 230 dwelling units on the north side of State Route 4 and about 1100 additional dwelling units on the south side of State Route 4. Therefore, the existing development plan for the area provides for 3 times as many dwelling units as currently exist in Bear Valley. As a result, if the RWQCB accepts the position that there is no land remaining in the valley that is suitable for wastewater disposal at this point in time, the only option for disposal of 3 times as much effluent, that will occur at build-out, will be a direct and continuous discharge to Bloods Creek and the Stanislaus River.

While development in Bear Valley proceeded at a moderate pace for several years, the bankruptcy of the developer in 1973 reduced the rate of development to an extremely low rate that has endured for the past decade or more. However, with the recent



acquisition of extensive holdings in the Bear Valley area by outside interests with aspirations for developing the area into a significant recreational destination, it is clear that any NPDES discharge permit granted at this time will have to be expanded to meet the increase in flows that will accompany the planned growth, if the available land suitable for wastewater discharge is reserved for use as building sites. The new owners are in the initial stages of formulating plans to initiate extensive development of the recreational and residential potential of the area. A golf course has been mentioned as one of the enhancements to the planned development. If constructed, the golf course would include an area that was used as an effluent disposal area many years ago before the current facilities were constructed. The area is relatively dry and should serve as a favorable site for an impoundment for treated wastewater that could be recycled for irrigation to avoid the need for disposal to the waters of the State now and into the future.

The area where a golf course could be built, in the next significant valley to the west of the existing wastewater treatment facilities, presents an area that would be suitable for wastewater storage and treatment at the current time. Since it is owned by the developer that is in the initial stages of planning the next wave of significant development in Bear Valley, the absence of an NPDES permit would provide an incentive to the developer to use that area for wastewater storage and disposal in lieu of other development that could increase the volume of the discharge. Furthermore, since the area has potential as a golf course site, the development of that area to provide needed wastewater storage and disposal would benefit the developer by facilitating the capacity for handling additional wastewater while providing a recreational enhancement for the community. On the other hand, if the RWQCB grants an NPDES permit, discharging to the waters of the state will be the more attractive alternative and a discharge to land will be rejected for economic reasons.

With respect to economic considerations, Bear Valley is a resort area where the vast majority of the homeowners are absentee property owners that utilize their houses as vacation homes. The 2000 census found that there were only 134 permanent residents in the valley, while the seasonal population during the vacation season increases to 2500. Furthermore, the houses in the area are upscale residences that typically exceed the value of the average Californian's residence. As such, the Bear Valley community is not economically depressed and does not need the most inexpensive alternative for disposing of their wastewater effluent (a discharge to waters of the state).

Since the Department commented on the 2001 proposal for an NPDES permit for Bear Valley, the United States Environmental Protection Agency implemented its Drinking Water Source Assessment and Protection (DWSAP) program. That program required an evaluation of the impacts of polluting activities, including wastewater discharges, on each source of drinking water used in California. The DWSAP program was instituted to create an awareness of the impact of pollution sources on drinking water sources and to initiate the establishment of Source Water Protection (SWP) measures to protect drinking water sources from pollution. The concept of SWP evolved from the recognition that contamination of drinking water sources has emerged as a significant problem in recent years and the realization that the implementation of proactive measures to prevent the pollution of lakes, rivers, streams and ground water that serve as sources of drinking water provide the most cost effective method of ensuring the safety of drinking water supplies. With worldwide energy supplies being stressed and the cost of energy rapidly increasing, it is not reasonable to add an additional load of pollutants to existing source waters for the economic benefit of one area only to



necessitate the expenditure of many multiples of the economic value of that benefit by downstream users on more sophisticated, energy-intensive treatment processes to make the polluted water suitable for drinking. Protecting source waters saves financial resources, energy resources, and domestic water resources that are essential to public health.

The RWQCB should also consider the other environmental benefits of maintaining the pristine quality of the Stanislaus River. Currently, considerable quantities of high-quality water from the Stanislaus River are required to be released from New Melones Reservoir in order to dilute the extremely contaminated Lower San Joaquin River and improve the quality of water in the South Delta where State and Federal pumping plants divert water south through canals that provide essential water for more than half of the population of the State. If the RWQCB abandons its protection of the Stanislaus River and acknowledges the River as a disposal conveyance for the wastewater of the rapidly growing mountain, foothill, and valley communities in the Stanislaus River watershed, the value of water from the Stanislaus River will diminish to the point where ever-increasing releases of the water will provide less and less benefit in diluting the pollution of the Lower San Joaquin River. As a result, water quality and the environment of the Delta will suffer and the quality of the water available to the two-thirds of the population of California that receive their drinking water from the Delta will be the victims of the degradation of water quality.

Furthermore, if the RWQCB does not approve discharges of Bear Valley wastewater into the Stanislaus River and its tributaries, the community will have an incentive to initiate wastewater recycling. Wastewater recycling promotes primary objectives of the RWQCB, the Department of Water Resources, and the Department of Health Services by making additional water available for numerous approved uses without burdening the supply of water that is otherwise available. In this situation, water recycling can make valuable use of the wastewater generated in Bear Valley, thereby saving available fresh water and precluding the need to discharge wastewater to the waters of the State. In recent years, the Lake Alpine Water Company in Bear Valley has been furnishing water from its domestic water source to the nearby Bear Valley ski area for use in making snow. Since other ski areas in northern California are using recycled wastewater for snow making, a similar conversion to recycled water from the Bear Valley Water District as the source of water for snow making would be feasible, would provide a beneficial use of wastewater from the Bear Valley system, and would conserve pristine water for uses where higher quality is essential.

The RWQCB is now requiring many or most dischargers in the Central Valley to improve their treatment and the quality of their discharges. Tertiary treatment is becoming established by the RWQCB as the standard for most of the NPDES discharges by communities in the Stockton District. The added costs of improved treatment are causing communities in the Central Valley to initiate wastewater recycle projects to both control costs associated with NPDES discharges and to conserve water supplies which are becoming more valuable and less available. Avoiding the establishment of a discharge of wastewater effluent into Bloods Creek and the Stanislaus River by the Bear Valley Water District will, similarly, promote recycling of the wastewater effluent, which will become recognized as an asset, rather than a liability. Some uses of recycled water can be permitted with the treatment level of the effluent limited to the secondary level that is now accomplished by the Bear Valley Water District. As a result, recycling can serve some beneficial uses with no more treatment than the Bear Valley Water District is currently providing. On the other hand, if tertiary



treatment is necessary to facilitate the recycling of the wastewater for other uses, such as irrigation of an unrestricted use golf course, it is evident that such an alternative is practical and beneficial since many of the communities in the mountain counties have upgraded their treatment and are using their wastewater effluent in a recycling program. Furthermore, if the Bear Valley Water District upgrades its treatment in order to provide water for uses requiring tertiary treated effluent, the impact of an unavoidable discharge of water from the Bear Valley system into the waters of the State due to a 100-year storm event will have a less significant environmental impact than a discharge of effluent of the current quality.

The population of California is now growing at an unprecedented rate, and with population growth, there is an increasing demand for water that is suitable for domestic use. The available sources of water are not expanding, but are static, at best, when periods of drought do not decrease the available supplies. Therefore, the available sources must be protected and conserved more vigorously than ever before to assure a supply of water for domestic use by the expanding population. At the same time, the activities of an ever-expanding population are continuously increasing the potential for further polluting waters of the state if NPDES discharges are expanded. Therefore, avoiding discharges to waters of the State, wherever possible, must remain an important objective to maintain the quality of the water available as a source of drinking water for Californians. Recycling provides the available means of expanding the available water supply through reuse while adding value by simultaneously providing an environmentally appropriate means of disposing of the community's wastewater stream.

While there is frequently resistance by a community to initiate wastewater recycling when the extremely low cost of an NPDES discharge is an available option, the water community in the state must promote recycling for the benefit of the environment. While the following experience was cited in comments in 2001, it is worth repeating because it illustrates a condition that is repeating in this situation. The Sierra Conservation Center (SCC) studied its options for effluent disposal and made the finding that it could not continue to exist without an NPDES discharge permit to allow its wastewater effluent to be discharged into the Stanislaus River a few years ago. However, when that proposal was found to be unacceptable by the RWQCB and the Department, SCC quickly discovered that there were readily available options to recycle its wastewater effluent economically. It has already been demonstrated that the Bear Valley Water District effluent has value in making snow that promotes the recreational attributes of the Bear Valley area in the winter. In addition, there is land in the planned development area that can be used for effluent disposal and can subsequently be used as a golf course that would facilitate effluent disposal and a recreational attribute for the community. Therefore, it is likely that the Bear Valley Water District, like SCC, will find that land storage and disposal can be accomplished if an NPDES discharge permit is denied.

Since there are alternatives to avoid development in Bear Valley from degrading the waters of the State, the RWQCB should take an action that will direct Bear Valley developers toward those alternatives and away from the attractiveness of the Stanislaus River and its tributaries as receiving waters for the expanding flows of wastewater that accompany poorly-planned development. Since most, if not all, of Bear Valley now receives domestic water at a fixed, flat monthly fee that is not related to the amount of water consumed, denying the request for an NPDES permit could drive Bear Valley toward the distribution of water through a system of meters that result in water bills that are proportional to water consumption. The water resources community in California has confirmed that the conversion of a water distribution system from a flat rate fee



structure to a metered fee structure results in considerable reductions in water use. These lower consumption rates translate into decreased quantities of wastewater that must be treated and disposed.

It is not only the Department that has a basic policy that there should be no discharge of wastewater effluent to streams and rivers used for domestic water supply. The RWQCB has a very similar policy in the Water Quality Control Plan (Basin Plan) for the Central Valley Region for the Sacramento River and the San Joaquin River Basins. In the Basin Plan, recycling of sewage effluent and land disposal are the preferred methods of effluent disposal, and discharges to waters of the State are a last resort, where other alternatives are not feasible. The Board should support its own Basin Plan and require the Bear Valley community to dispose of its wastewater effluent by recycling or land disposal, since both the RWQCB and the Department agree that would best serve the people of the State of California.

The Department has a reasonable familiarity with the Bear Valley area through a few decades of working with the Orvis family that owns the Lake Alpine Water Company, which provides water for domestic use to most of the residents of the valley. The Orvis family originally owned most of the valley and promoted most of the development that currently exists in the valley. Most of the remaining land available for development in the valley once belonged to the Orvis family and is included in the development plan prepared by the Orvis family and approved by Alpine County. Based on information from the Orvis family, the Department is convinced that there are land disposal alternatives that should be utilized in lieu of the establishment of an NPDES permit that allows discharge of the wastewater to the pristine headwaters of the Stanislaus River system.

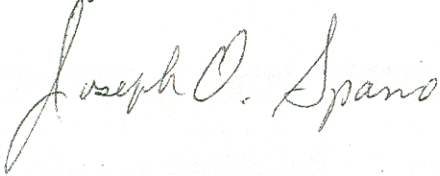
The Bear Valley Water District is not the first wastewater entity that has collected wastewater in volumes that exceeded the capacity to store or dispose of the wastewater. Some entities have responded responsibly to unusual conditions that resulted in volumes of effluent that exceeded storage capacity and have had the wastewater hauled to other facilities that had the capacity to store or dispose of more wastewater than they were generating. If such a discharge is likely to occur as infrequently as implied in the subject tentative NPDES order for Bear Valley, transferring excessive stored wastewater to another facility should be a practical solution that should not have a significant impact on the community. Furthermore, facing such a responsible alternative to an NPDES discharge is likely to motivate the community to pursue alternatives that will avoid the need for either an NPDES permit or hauling wastewater from the site. Simply allowing any entity to discharge wastewater into a nearby stream, on the other hand, provides a disincentive to the establishment of more responsible wastewater management practices and an incentive to rely on the waters of the state as a cheap escape from more responsible behavior.

Therefore, the Department requests that the RWQCB not adopt the current proposed order that would grant an NPDES discharge permit to the Bear Valley Water District in 2005. As an alternative, it is recommended that the RWQCB direct the Bear Valley Water District to prepare a plan to avoid accumulating volumes of wastewater that exceed the capacity of the District to store and dispose of the effluent. Water conservation and recycling may be elements of the plan; however, the plan should include an emergency contingency provision for hauling the effluent to an alternate facility when the stored volume presents the threat of an illegal overflow to the waters of the state.



Since the Bear Valley Water District is currently claiming that there is no capacity to deal with high effluent volumes that are expected to occur in conjunction with unusual weather conditions that may occur at an extremely low frequency, it is clear that the existing land use plan that approves the tripling of the number of housing units in Bear Valley as development proceeds in the next several years lacks a suitable element for wastewater disposal. A rejection of the proposed NPDES order by the RWQCB will direct the Bear Valley Water District to develop a realistic and needed plan to responsibly limit, recycle, and dispose of the current and future volumes of wastewater without initiating use of the Stanislaus River system as a receiving water for wastewater from communities in its watershed.

Thank you for the opportunity to comment on the tentative NPDES Order for the Bear Valley Water District.



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